USSN: 10/803,550

## **AMENDMENTS**

## In the Claims:

1.-10. (Canceled)

11. (**Currently Amended**) A method of inserting an exogenous nucleic acid into the genome of a mouse or rat, said method comprising:

introducing into said mouse or rat a P-element derived vector comprising said exogenous nucleic acid under conditions sufficient for transposition to occur, wherein said <u>P-element derived</u> vector <u>further</u> comprises a pair of P-element transposase recognized insertion sequences flanking <u>a P-feet flanked domain</u> of at least about 2,000 bp in length, wherein said P-feet flanked domain comprises a heterologous promoter and a single transcriptionally active gene that comprises said exogenous nucleic acid, wherein said single transcriptionally active gene is separated from one of said P-element transposase recognized insertion sequences by a distance of about 1,000 bp or less, so that said exogenous nucleic acid is inserted into said genome

wherein said P-element derived vector further comprises a transposase domain, or

wherein said method further comprises introducing a second Pelement derived vector comprising a transposase domain into said mouse or rat.

- 12. (Canceled)
- 13. (**Currently Amended**) The method according to Claim 11, wherein said **P-element derived** vector comprises a transposase domain.

USSN: 10/803,550

14. (**Currently Amended**) The method according to Claim 11 wherein said method further comprises introducing a second vector comprising a transposase domain into said **animal** mouse or rat.

- 15. (Previously Presented) The method according to Claim 11, wherein said exogenous nucleic acid ranges in length from about 50 to 150,000 bp.
  - 16.-26. (Canceled)
- 27. (**Currently Amended**) A mouse or rat or cells derived from said mouse or rat that has a pair of P-element transposase recognized insertion sequences integrated into the genome of said mouse or rat or cells derived therefrom

has/have been transformed with a P-element derived vector comprising a pair of P-element transposase recognized insertion sequences flanking a heterologous promoter and a single transcriptionally active gene that comprises an exogenous nucleic acid,

wherein said single transcriptionally active gene is separated from one of said P-element transposase recognized insertion sequences by a distance of about 1,000 bp or less; and

wherein said P-element derived vector further comprises a transposase domain, or

wherein said mouse or rat or cells has/have been transformed with a second P-element derived vector comprising a transposase domain.

- 28.-30. (Canceled)
- 31. (Previously Presented) The composition of claim 27 wherein said mouse or rat or cells derived therefrom has a pair of P-element transposase recognized

USSN: 10/803,550

31bp insertion sequences integrated into the genome of said mouse or rat or cells derived therefrom.

32.-38. (Canceled)

- 39. (Previously Presented) The method according to Claim 11, wherein said method is a method of inserting an exogenous nucleic acid into the genome of a mouse.
- 40. (Previously Presented) The method according to Claim 11, wherein said method is a method of inserting an exogenous nucleic acid into the genome of a rat.
- 41. (**Currently Amended**) A method of inserting an exogenous nucleic acid into the genome of a mouse, said method comprising:

introducing into said mouse a P-element derived vector comprising said exogenous nucleic acid under conditions sufficient for transposition to occur, wherein said <u>P-element derived</u> vector comprises a pair of P-element transposase recognized insertion sequences flanking a <u>P-feet flanked domain</u> of at least about 2,000 bp in length, wherein said P-feet flanked domain comprises at least one transcriptionally active gene that is <u>located</u> within <u>1,000</u> <u>bp at least 50 bp</u> of one of the P-element transposase recognized sequences; and a transposase domain.

wherein said P-element derived vector further comprises a transposase domain, or

wherein said method further comprises introducing a second Pelement derived vector comprising a transposase domain into said mouse.

42. (**Currently Amended**) A method of inserting an exogenous nucleic acid into the genome of a mouse, said method comprising:

USSN: 10/803,550

introducing into said mouse a P-element derived vector comprising said exogenous nucleic acid under conditions sufficient for transposition to occur, wherein said <u>P-element derived</u> vector comprises a pair of P-element transposase recognized insertion sequences flanking <u>a P-feet flanked domain of at least about 2,000 bp in length, wherein said P-feet flanked domain comprises at least one a heterologous promoter and a single transcriptionally active gene that is within at least 50 bp of one of the P-element transposase recognized sequences,</u>

wherein said single transcriptionally active gene is separated from one of said P-element transposase recognized insertion sequences by a distance of about 1,000 bp or less; and

- (a) wherein said P-element derived vector further comprises a transposase domain, or
  - (b) wherein said method further comprises:
- (i) inserting a second P-element <u>derived</u> vector comprising a transposase domain into the genome of said mouse; <u>or</u>
  - (ii) inserting cells derived therefrom.
- 43. (**New**) The method according to Claim 41, wherein said P-element derived vector comprises a transposase domain.
- 44. (**New**) The method according to Claim 41 wherein said method further comprises introducing a second vector comprising a transposase domain into said mouse.